

What is claimed is:

1. A strain gauge retaining assembly used for occupant weight sensing in a vehicle seat comprising, in combination:

a bracket having an aperture extending therethrough;

a strain gauge having a body and a mounting portion extending from the body, the mounting portion extending through the aperture;

a spring clip positioned between the bracket and an engaging surface of the mounting portion, the spring clip resiliently biasing the body into engagement with the bracket.

2. The strain gauge retaining assembly of claim 1, wherein a groove is formed on an exterior surface of the mounting portion and receives the spring clip.

3. The strain gauge retaining assembly of claim 1, wherein the spring clip comprises:

a body portion having a first surface and an opposed second surface, a first end and a second end;

a substantially U-shaped recess formed in the body portion and defining a pair of opposed legs, each leg extending away from the first end toward the second end and having a projection extending outwardly from its first surface proximate the second end; and

a projection extending outwardly from the first surface of the body portion proximate the first end.

4. The strain gauge retaining assembly of claim 3, wherein the projection of each leg is a ridge extending across the leg and the projection of the body portion is a ridge extending across the body portion.
5. The strain gauge retaining assembly of claim 4, wherein the ridge of each leg and the ridge of the body portion engage the bracket, and the second surface of the body portion engages a groove formed in an exterior surface of the mounting portion.
6. The strain gauge retaining assembly of claim 3, wherein the substantially U-shaped recess includes a necked region.
7. The strain gauge retaining assembly of claim 6, wherein the width of the necked region is slightly smaller than a diameter of the mounting portion at a base of the engaging surface.
8. The strain gauge retaining assembly of claim 3, wherein at least a portion of each leg is tapered toward the second end such that the substantially U-shaped recess is widest at its open end.
9. The strain gauge retaining assembly of claim 1, wherein the engaging surface of the mounting portion is a wall of a groove formed in the mounting portion.
10. The strain gauge retaining assembly of claim 1, wherein the mounting portion includes a shoulder and a bolt.

11. The strain gauge retaining assembly of claim 1, wherein the spring clip is curved inwardly toward a first surface thereof.
12. The strain gauge retaining assembly of claim 1, wherein the spring clip includes at least one tab extending outwardly from a surface of the spring clip, and the bracket includes at least one recess, each recess receiving a corresponding tab.
13. A strain gauge retaining assembly used for occupant weight sensing in a vehicle seat comprising, in combination:
  - a bracket having an aperture extending therethrough;
  - a strain gauge comprising:
    - a body;
    - a shoulder; and
    - a mounting bolt extending from the shoulder, the shoulder and mounting bolt extending through the aperture; and
  - a spring clip having a substantially U-shaped recess defining a pair of opposed legs, a first surface of the spring clip engaging the bracket and an opposed second surface of the spring clip engaging an engaging surface of the shoulder, the spring clip being compressed between the bracket and the engaging surface.
14. The strain gauge retaining assembly of claim 13, wherein the shoulder includes a groove formed therein, a wall of the groove forming the engaging surface of the shoulder.

15. The strain gauge retaining assembly of claim 13, wherein each leg has a projection extending outwardly from its first surface and the body portion has a projection extending outwardly from its first surface, the projections engaging the bracket.
16. The strain gauge retaining assembly of claim 15, wherein the projection of each leg is a ridge extending across the leg and the projection of the body portion is a ridge extending across the body portion.
17. The strain gauge retaining assembly of claim 13, wherein the substantially U-shaped recess includes a necked region.
18. The strain gauge retaining assembly of claim 13, wherein at least a portion of each leg is tapered toward an end thereof such that the substantially U-shaped recess is widest at its open end.
19. A strain gauge retaining assembly used for occupant weight sensing in a vehicle seat comprising, in combination:
  - a bracket having an aperture extending therethrough;
  - a strain gauge comprising:
    - a body;
    - a shoulder having a groove formed therein; and
    - a mounting bolt extending from the shoulder, the shoulder and mounting bolt extending through the aperture; and

a spring clip having a body portion, the body portion having a substantially U-shaped recess defining a pair of opposed legs, the legs being received in the groove, each leg having a leg ridge extending outwardly from a first surface of the leg, the body portion having a ridge extending outwardly from a first surface of the body portion, the leg ridges and the ridge of the body portion engaging the bracket and an opposed second surface of the spring clip engaging a wall of the groove, the spring clip being compressed between the bracket and the wall of the groove.

20. The strain gauge retaining assembly of claim 19, wherein the substantially U-shaped recess includes a necked portion.

21. The strain gauge retaining assembly of claim 20, wherein the width of the necked region is slightly smaller than a diameter of the shoulder at a base of the groove.

22. The strain gauge retaining assembly of claim 19, wherein at least a portion of each leg is tapered toward its end such that the substantially U-shaped recess is widest at its open end.